

Removal of micropollutants in the Deißlingen wastewater treatment plant

Specification of the plant:

Treatment capacity	[PE]	75,000
Load	[PE]	65,000
Inflow volumes:		
▪ Dry weather flow	[l/s]	198
▪ Max. wet weather flow	[l/s]	845
▪ Annual wastewater volume	[m³/a]	6,500,000



Process technology:

Mechanical treatment:	Fine screen, sand and grease trap, primary clarifier
Biological treatment	Pre-denitrification, nitrification, 2 lanes
Chemical treatment	Phosphate precipitation: simultaneous and post
Elimination of micropollutants	Granular activated carbon filter (GAC)
Filter	GAC-filter

 Villingen-Schwenningen

AZV Oberer Neckar
Kläranlage Deißlingen
Schopfelen 2
78652 Deißlingen

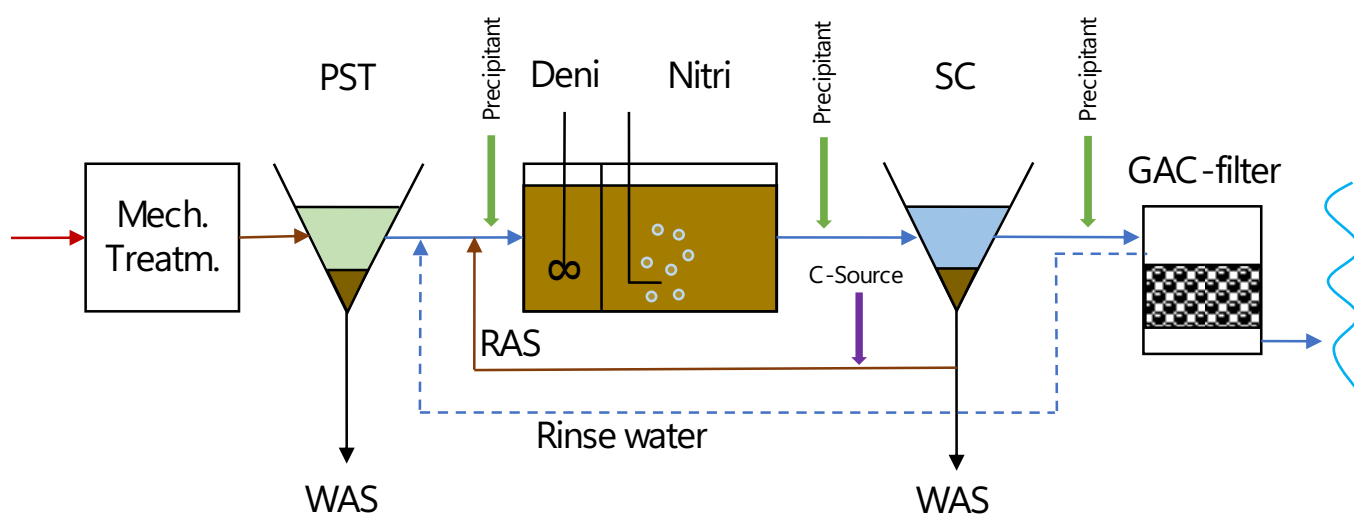


Fig. 1: Process diagram of the Deißlingen wastewater treatment plant

Design of micropollutant removal:

Year of commissioning of the advanced treatment stage	2024	
Activated carbon filter		
▪ Max. treatable volume	[l/s]	240
▪ Number of filter cells		7
▪ Total surface area of the filter cells	[m ²]	134.4
▪ Total volume of the filter cells	[m ³]	625
▪ Volume of the activated carbon bed per cell	[m ³]	50
▪ Surface area of the activated carbon bed per cell	[m ²]	19.2
▪ Max. filter velocity	[m/h]	864
▪ Min. empty bed contact time (EBCT)	[min]	24